

## Appendix F. 2023 Interim Update

### Introduction

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#### Background

The Regional Operations Plan (ROP) completed for the Eastern Regional Traffic Management Center (RTMC) Region in 2020 was part of a statewide initiative to increase implementation of Transportation Systems Management and Operations (TSMO) projects. This ROP was compiled based on guidance from PennDOT Publication 851 (TSMO Guidebook, Part I: Planning).

This addendum provides an interim update to the 2020 Eastern RTMC ROP, including the status of existing projects, a discussion of emerging trends related to traffic operations, and identification of new ROP projects which have been proposed during the update process.

#### Update Process

This interim update was completed through a schedule of approximately six months. A kickoff meeting was held on April 26, 2023, followed by three stakeholder outreach meetings. One with stakeholders and planning partners in the District 4 region (Scranton), one with stakeholders and planning partners in the District 5 region (Allentown), and one with stakeholders and planning partners in the District 8 region (Harrisburg). The stakeholder outreach meetings were used to confirm existing project status and gain insight into new traffic operations needs in each respective area. This information was evaluated with the project steering committee – including PennDOT Bureau of Operations (BOO) and PennDOT Districts 4-0, 5-0, and 8-0 – and a list of new ROP projects was confirmed.

This process does not supplant the extensive stakeholder outreach and data analysis completed during the 2020 ROP development. New projects identified within this update process should be considered alongside, and not in place of, previously confirmed projects when funding opportunities arise.

### Status of Existing ROP Projects

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In the initial 2020 Eastern RTMC ROP, 85 projects and 4 studies were identified, ranging from intelligent transportation systems (ITS) and traffic signal improvements to incident management and preventive safety technologies. Integrated Corridor Management (ICM) was also a key component of the ROP. These projects take a holistic approach, maximizing existing capacity of parallel routes and emphasizing multimodal approaches to congestion management. Projects were prioritized based on stakeholder input and discussions into “High Priority” and “Normal Priority” groups. **Table 4** shows the status of each of these previously documented projects. Status updates fall into the following categories shown in **Table 1**.

**TABLE 1: PROJECT STATUS DEFINITIONS**

Project Status	Definition
Documented	Project has been included in the ROP.
Programmed	Project has been included in a planning document, such as a Transportation Improvement Program (TIP), Twelve Year Program (TYP), or Long-Range Transportation Plan (LRTP) and/or another a funding source has been secured. Specific funding sources are noted were applicable.
Partial Progress	Progress has been made on some component of the project. The “Notes” column provides more detail. For example, a project that might have included both traffic signal improvements and ITS devices could have seen the signal work progressed but not the ITS devices, or vice versa.
In Design	Project is currently in design.
In Construction	Project is currently in construction.
Complete	Project has been completed.

A number of ROP projects have been completed in the region, including Waynesboro Signal Improvements and District 5-0 CCTV Digital Retrofit. Construction has started on various traffic signal and ITS projects across the region such as Downtown Reading Signal Improvements and the Dillsburg ITS project. There are a few major projects currently under design: Dauphin I-283/PA-283 Fiber Interconnect, PA-924 Ramp Preemption, and US 22/322 ITS Devices.

Several projects have seen partial progress of varying degrees. This includes partial progress of the US-30 ICM in York County, I-84 Corridor ITS, and I-80 Monroe County ITS projects.

## Status of Studies and Initiatives

In addition to the projects, there were a total of 4 studies and initiatives that were identified in the previous ROP. These ranged from Freight Management studies to Multimodal Connectivity studies. While specific projects could be determined for many of the issues and needs, others need further study to best determine the correct mitigation to improve operations.

One of the studies in the region made significant progress. The Eastern RTMC Truck Parking Study saw progress through the Eastern Regional Freight Plan expected to be completed at the end of the year. A table is attached, which shows the status of each of these previously documented projects. Status updates fall into the following categories shown in **Table 2**. See **Table 5** for a full list of previously documented studies and initiatives.

**TABLE 2: STUDY STATUS DEFINITIONS**

Study Status Choices	Definitions
Documented	Project included in the ROP.
Planned	Study is planned for the future.
Partial Progress	Progress has been made on some component of the project/study. See Notes column for more detail.
Complete	Study has been completed.

## Emerging Trends

The stakeholder engagement process was also used to discuss noteworthy regional, industry, and technology-related trends in the region which could impact transportation operations. This discussion included discussion of some general trends, including:

- Funding challenges – Transportation agencies throughout the country are grappling with growing gaps in transportation funding, brought on by reduced gas tax funds, as well as other factors. PennDOT completed the PennDOT Pathways Planning and Environmental Linkages (PEL) Study which evaluates the near-term and long-term revenue options and strategies to mitigate this issue and ensure the Commonwealth’s highways and bridges are maintained in a state of good repair. The PEL Study can be viewed here: [https://www.penndot.pa.gov/about-us/funding/Documents/PennDOT-Pathways\\_PEL-Study.pdf](https://www.penndot.pa.gov/about-us/funding/Documents/PennDOT-Pathways_PEL-Study.pdf). One outcome of this process could include an increased focus on TSMO projects – prioritizing more efficient usage of existing capacity could decrease funding needs and ensure available funds are spent on projects that maximize potential benefits to safety and mobility. An opportunity for funding was presented when The Infrastructure Investment and Jobs Act (IIJA) authorized a new Carbon Reduction Program (CRP). The CRP allocates \$55 million for PennDOT annually. With the additional CRP funds, the TSMO Funding Initiative was able to double its annual allotment.

The discussions also included specific planned developments and other location-specific trends, as discussed below.

## Adams County MPO

The Adams County MPO adopted their 2050 LRTP in July 2022. The plan was developed with the following transportation goals in mind:

- Evaluate existing comprehensive plan data and recommendations pertaining to transportation planning and to identify an adequate policy framework for future update strategies.
- Assess the current transportation system in terms of accessibility, use, capacity, connectivity, energy efficiency, and safety especially with regard to the future fiscal health of Adams County community revitalization and sustainability and the demands of alternative future growth scenarios.
- Identify, through broad public participation and citizen involvement approaches, emerging social and economic issues which generate special needs upon the county's transportation system.
- Evaluate the future transportation demands on the county transportation system, in response to emerging land use and socioeconomic trends which will directly affect system capacity and performance.
- Identify the need and opportunity for enhanced public transit service in Adams County and to construct a policy decision-making framework to address this issue.
- Identify needs and opportunities for increased development of pedestrian and bicycle modes of transport within the county.

## Franklin County MPO

Franklin County MPO continues to experience increased freight traffic due to two intermodal yards and the continued development of warehouses and distribution centers, making freight a growing transportation concern for FCMPO. This concern extends to Interstate 81, which is expected to reach an unacceptable level of service on the mainline and increased congestion at interchanges well before funding is expected to become available to make improvements to the corridor. In addition to freight and interstate movement, the FCMPO continues to emphasize maintenance and safety projects as pavement and bridges begin to age out of their life cycles and as HSNS priority locations are identified. No less important but limited by available funding and other existing needs, the FCMPO continues to explore ways to improve bicycle and pedestrian accommodations, traffic operations, and public transportation as the region sees increased peak congestion from single occupancy vehicles.

## Harrisburg Area Transportation Study MPO

The Congestion Management Process (CMP) for the Harrisburg Area Transportation Study (HATS) is an on-going process that determines where congestion exists on the regional network, identifies the causes of congestion, and develops transportation strategies to reduce traffic congestion, enhance safety, and allow for better mobility across the region.

Six general goals were identified in the HATS CMP:

- 1) Manage congested areas through the congestion management process (CMP), safety and mobility plans, and application of technologies such as ITS and PA 511.
- 2) Facilitate multi-municipal efforts to coordinate traffic signals and traffic flow along all congested roads, specifically CMP focus and priority corridors and intersections.
- 3) Support access management efforts and promote better coordination of Highway Occupancy Permits between PennDOT and municipalities to reduce unnecessary access and potential conflict points.
- 4) Reduce single occupancy vehicles (SOVs) by offering safe alternative travel modes.
- 5) Discourage parking policies that contradict SOV reduction strategies and programs.
- 6) Evaluate the effectiveness of implemented strategies by comparing performance measures before and after improvements.

## Lackawanna/Luzerne MPO

LLTS MPO is focused on warehousing and freight in the region. With the confluence of several major interstate and US routes in the two-county region, there has been an abundance of new warehousing. The added freight movement is taking a toll on the region's infrastructure, impacting roadway congestion. With this growth in mind, the MPO joined the Eastern PA Freight Alliance (EPFA). The Alliance consists of 5 MPOs covering 10 counties in the region addressing freight movement and parking dilemmas.

Congestion is another priority for the LLTS MPO. The ROP serves as a supplemental document that will be utilized in the current update of the MPO Congestion Management Process (CMP). Due to be completed in 2024, the CMP will analyze all congested roadways and corridors in Lackawanna and Luzerne Counties.

Safety for all users is a main priority in all LLTS MPO planning activities. Active transportation is an emerging recreational activity, creating a need for safer networks for bicyclists and pedestrians. The Bicycle and Pedestrian Study For the Central Business Districts of Scranton and Wilkes-Barre addresses this need by recommending safety and facility upgrades in the region's downtown cores.

## Lancaster MPO

A focus for the Lancaster MPO is multimodal connectivity, particularly bike improvements, as implementation of the Lancaster Active Transportation Plan (2019). The City of Lancaster bicycle network continues to grow with bike boulevards, conventional and separated bike lanes, multi-use paths, bike parking, and bike share. The Bike It Lancaster bike share program relaunched in April 2021 with new bikes and a new vendor, Tandem Mobility. The City of Lancaster opened 10 stations and 50 bikes in 2023. The program can expand outside City limits, add electric bikes, and make service available year-round with future Congestion Mitigation and Air Quality (CMAQ) funding support from the Lancaster MPO.

Most TSMO transportation needs in Lancaster County are traffic signal improvements on arterial corridors.

The Lancaster MPO's 2025-28 Transportation Improvement Program (TIP) development and selection process includes high priority projects from the ROP as candidate projects for TIP funding.

## Lebanon County MPO

Lebanon County MPO's visions for transportations is "The transportation system of Lebanon County will safely, efficiently, and effectively serve the mobility, access, and travel needs of all current and future users." Lebanon County MPO published their Long-Range Transportation Plan (LRTP) to support this vision. The LRTP outlines the following goals for transportation:

- Maintain a safe, efficient, interconnected, and accessible transportation system.
- Enhance and expand the variety of travel modes in existing and future development, with particular emphasis on energy efficiency.
- Target transportation investment for maximum local and regional benefit.
- Maintain and improve the existing transportation system first; focus on affordable operational improvements second.
- Encourage local and private financial support to help expedite transportation project delivery.

## Lehigh Valley Transportation Study MPO

FUTURELV: The Regional Plan is the latest LRTP for the Lehigh Valley, completed in 2019 and updated in 2023. It sets the vision and direction for the region (comprised of Lehigh and Northampton Counties) to 2045 and beyond. The plan looks to manage future growth, maximize the region's assets, and provide the chance for everyone to have access to health, opportunity, and a livable neighborhood.

The plan was compiled based on an extensive and varied amount of community engagement, including public meetings, an online survey, and an interactive website. One of the main concerns of residents is the growth of distribution centers throughout the area, with it being named the fastest-growing corridor in the nation for warehousing and logistics. The Lehigh Valley is also unique in that a large number of residents commute to work outside of the region, particularly in Philadelphia, New York City, and New Jersey.

The Plan focuses on creating a transportation network built around centers and corridors. This means reducing sprawl and achieving density to support a more multimodal, accessible transportation system. This includes expanding the existing trail network and improving connectivity so that it can be used for transportation and not just recreation. The plan also includes the implementation of high-frequency bus corridors to move people more efficiently between the major regional centers of Allentown, Bethlehem, and Easton.

Another aspect of the plan's goal of a Connected Mixed-Transportation Region is to "support the expansion of technology, communications and utilities to reduce travel demands, optimize traffic flow and prepare for the next generation of jobs." This includes use of adaptive traffic signals and expansion of the communications network for ITS applications.

### **Northeastern Pennsylvania MPO**

The Northeastern Pennsylvania Alliance (NEPA) is designated as a Metropolitan Planning Organization serving as the coordinating agency for transportation planning and programming in Carbon, Monroe, Pike and Schuylkill counties. The NEPA MPO region is 2,354 square miles, including both small urban and rural areas. The region has nearly 4,900 linear miles of roadway, 1,031 state-owned bridges, 297 local bridges and 362 miles of freight rail.

Regional employment in the Transportation and Warehousing industry has experienced an exponential increase in recent years. This brings with it an increase in truck traffic on the region's major roadways. To address the growing truck traffic, the NEPA MPO has joined with four other MPOs to develop the Eastern Pennsylvania Freight Infrastructure Plan which will be completed in late 2023.

Other major employment sectors in the NEPA MPO region include Arts, Entertainment and Recreation. Ensuring a reliable transportation system to draw visitors to the region is a top priority. As a result, several major interstate improvement projects are planned or in construction on Interstate 84 in Pike County and Interstate 80 in Monroe County.

### Northern Tier RPO

The focus of the Northern Tier RPO Regional Operations Plan would be on the I-81 corridor in Susquehanna County and the US 6 corridor in Wyoming County. Along the I-81 Corridor cameras along the Corridor in strategic locations are desired. Emergency cut across between the North and South bound lanes have been requested by the State Police to help with response times. Along the US 6 Corridor cameras in strategic locations are desired and with Proctor and Gambles largest Plant just a few miles west of Tunkhannock, traffic coordination with the large number of Truck traffic is an issue.

### Reading Area Transportation Study MPO

The Reading Area Transportation Study (RATS) Coordinating Committee (Reading Metropolitan Planning Organization) addresses transportation planning issues in the City of Reading and the remaining 71 municipalities in Berks County. The RATS Long Range Transportation Plan was most recently adopted in July 2022. Primary focus areas of this plan are to: Improve Safety and Mobility; Maintain Existing Infrastructure; Promote Economic Development; Improve Regional Connections; and Promote Environmental Sustainability.

To those ends, the Reading MPO is working closely with the Lackawanna / Luzerne, Lebanon, Lehigh Valley, and Northeast Pennsylvania Alliance MPO's in preparing a regional freight movement plan to address concerns over the impacts created by the growth of warehouse / distribution facilities and the resulting traffic.

Several major highway projects advancing in the county include: the phased reconstruction of the Interstate 78 corridor passing through northern Berks County providing links to the Lehigh Valley, New York metropolitan area and New England; phased upgrades to US 222 between Reading and Lehigh County widening from a two lane, signalized facility to a four-lane highway with roundabouts; and a major reconstruction of the US 422 West Shore Bypass through the core of the Reading urban area.

Additional activities include: working with the South Central Transit Authority in updating their Transit Development Plan for improving public transportation operations in the Reading / Berks portion of their service area; working with the Reading Regional Airport Authority to update their master plan for the Reading Regional airport to support its growth and positioning as a critical transportation and economic development asset; and working with the Schuylkill River Passenger Rail Authority and its associated counties (Berks, Chester and Montgomery) to restore a passenger rail link between Reading and Philadelphia with ties to the entire Northeast Corridor.

## Wayne County

Route 6 between Honesdale and Indian Orchard is very heavily traveled with more traffic expected. Minor improvements have been made at the Route 652 intersection to facilitate traffic flow, but congestion still occurs during the busier summer months. Parts of this highway section are also a designated bicycle route, but the highway shoulders have been reduced in width to accommodate increased vehicular traffic, exacerbating the conflicts. This portion of Route 6, as a designated bicycle route, was included in the Wayne County Trail Feasibility study completed in 2019 noting that funding opportunities exist to plan, design, and implement improvements to the corridor. These designated bike route improvements should be a priority along this route.

It is important to address the need for more public transportation options by building on the County system to provide a broader range of shared ride opportunities along with demand-responsive systems, working with private providers to expand their services, developing park and ride facilities, and identifying low-cost solutions such as shared-ride and other programs. Informal Park and Ride lots have appeared in several areas, reflecting a need that will have to be addressed on a more formal basis in the future as population grows and commuting expands

## York Area MPO

GOYORK 2045 is the Long-Range Transportation Plan adopted by YAMPO in June 2021. The purpose of the LRTP is to develop a coordinated effort to implement transportation improvements that attempt to achieve York County's future goals. YAMPO developed these goals by public consensus of York County's physical, social, economic, and institutional environments. Outlined in the LRTP as Operations actions moving forward are:

- Build additional park and ride lots
- Discuss impact of multi-modal transportation supply and demand during competitive funding applications.
- Reduce incident clearance time
- Organize road assistance programs
- Connect and coordinate traffic signals
- Expand Intelligent Transportation System (ITS) infrastructure

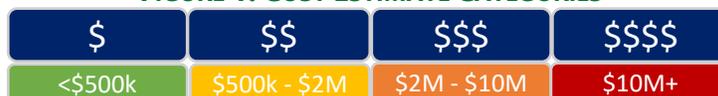
## New ROP Needs and Projects

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During the stakeholder engagement process for this interim update, a number of new issues and needs were discussed. These locations were reviewed and, where applicable, new ROP projects have been drafted for consideration. These projects have not undergone the data-heavy prioritization process which was used during the major update in 2020. Therefore, these projects should be considered alongside, but not in lieu of, projects previously included.

In total, 44 new projects have been included in this interim ROP update. They are summarized in **Table 3**. The projects include additional ITS needs, Transit Improvements, traffic signal improvement corridors, multimodal connectivity, intersection improvements, and traveler information. Project summary sheets have also been included as attachments. Projects are numbered sequentially for referencing, but no hierarchy should be assumed from the order given. No quantitative or qualitative prioritization was completed during this interim update. Prioritization can be revisited during a subsequent full ROP update. Cost estimates for this interim update generally follow the approach utilized in prior ROPs. This approach places projects into one of four cost categories, as outlined in **Figure 1**.

**FIGURE 1: COST ESTIMATE CATEGORIES**



**TABLE 3: INTERIM UPDATE ROP PROJECT ADDITIONS**

<b>Project #</b>	<b>Project</b>	<b>Stakeholders</b>	<b>Improvement Type</b>
IU.01	US 30 Fiber Deployment York County	PennDOT 8-0, York MPO	Communications
IU.02	US 30 Fiber Deployment Adams County	PennDOT 8-0, Adams County RPO	Communications
IU.03	US 30 Fiber Deployment Franklin County	PennDOT 8-0, Franklin MPO	Communications
IU.04	I-81 CCTV, DMS, & Fiber Moosic to Scranton	PennDOT 4-0, Lackawanna/Luzerne MPO	Freeway & Arterial Operations
IU.05	I-81 CCTV, DMS, & Fiber Dunmore	PennDOT 4-0, Lackawanna/Luzerne MPO	Freeway & Arterial Operations
IU.06	I-81 CCTV & DMS Gaps from I-80 to Dorrance	PennDOT 4-0, Lackawanna/Luzerne MPO	Freeway & Arterial Operations
IU.07	I-80 CCTV & DMS I-81 to White Haven	PennDOT 4-0, Lackawanna/Luzerne MPO	Freeway & Arterial Operations
IU.08	I-81 CCTV & DMS at Exit 219	PennDOT 4-0, Northern Tier RPO	Freeway & Arterial Operations
IU.09	I-81 Weigh-In-Motion, CCTV, & DMS	PennDOT 4-0, Lackawanna/Luzerne MPO	Freeway & Arterial Operations
IU.10	I-81 CCTV, DMS, & Fiber at PA 115	PennDOT 4-0, Lackawanna/Luzerne MPO	Freeway & Arterial Operations
IU.11	I-84 CCTV & DMS at PA 435	PennDOT 4-0, Lackawanna/Luzerne MPO	Freeway & Arterial Operations
IU.12	I-81 CCTV & DMS at PA 424	PennDOT 4-0, Lackawanna/Luzerne MPO	Freeway & Arterial Operations
IU.13	I-81 CCTV & DMS New Milford to State Line	PennDOT 4-0, Northern Tier RPO	Freeway & Arterial Operations
IU.14	I-81 CCTV & DMS at I-476 Interchange	PennDOT 4-0, Lackawanna/Luzerne MPO, PA Turnpike	Freeway & Arterial Operations
IU.15	I-81 CCTV, DMS, & Fiber mm 161-169	PennDOT 4-0, Lackawanna/Luzerne MPO	Freeway & Arterial Operations
IU.16	I-380 Corridor CCTV & DMS	PennDOT 4-0, Lackawanna/Luzerne MPO, NEPA MPO	Freeway & Arterial Operations
IU.17	US 6 Wyoming County CCTV	PennDOT 4-0, PennDOT Wyoming County Maintenance	Freeway & Arterial Operations
IU.18	I-84 CCTV & DMS Gaps	PennDOT 4-0, Lackawanna/Luzerne MPO	Freeway & Arterial Operations
IU.19	US 6 (Casey Highway) CCTV & DMS	PennDOT 4-0, Lackawanna/Luzerne MPO, Wayne County	Freeway & Arterial Operations

# Regional Operations Plan (ROP)

## Eastern RTMC Region

Project #	Project	Stakeholders	Improvement Type
IU.20	I-80 CCTV & DMS Nescopeck	PennDOT 4-0, Lackawanna/Luzerne MPO	Freeway & Arterial Operations
IU.21	I-84 CCTV & DMS Pike County	PennDOT 4-0, NEPA MPO	Freeway & Arterial Operations
IU.22	PA 611 Corridor Improvements	PennDOT 5-0, NEPA MPO, Lehigh Valley MPO	Freeway & Arterial Operations
IU.23	PA 940 Corridor Improvements	PennDOT 5-0, NEPA MPO	Freeway & Arterial Operations
IU.24	Pedestrian Countdown Timers	PennDOT 5-0, RATS	Freeway & Arterial Operations
IU.25	Ben Franklin Hwy US 422 Corridor Improvements	PennDOT 5-0, RATS	Freeway & Arterial Operations
IU.26	Berks County Signal Improvements	PennDOT 5-0, RATS	Freeway & Arterial Operations
IU.27	US 222 ITS Gaps	PennDOT 8-0, Lancaster MPO	Freeway & Arterial Operations
IU.28	Good Drive Signal Improvements	East Hempfield Township, Lancaster MPO, PennDOT 8-0	Freeway & Arterial Operations
IU.29	PA 501 and PA 772 Signal Coordination	Lititz Borough, Lancaster MPO, PennDOT 8-0	Freeway & Arterial Operations
IU.30	Columbia Borough CCTV & Signal Improvements	Columbia Borough, Lancaster MPO, PennDOT 8-0	Freeway & Arterial Operations
IU.31	Columbia Borough Emergency Preemption	Columbia Borough, Lancaster MPO, PennDOT 8-0	Freeway & Arterial Operations
IU.32	US 30 Greenfield Road Ramp Meter	East Lampeter Township, Lancaster MPO, PennDOT 8-0	Freeway & Arterial Operations
IU.33	Dillerville Road Flashing Yellow Arrows	City of Lancaster, Lancaster MPO, PennDOT 8-0	Freeway & Arterial Operations
IU.34	Elizabethtown Signal Improvements	Elizabethtown Borough, Lancaster MPO, PennDOT 8-0	Freeway & Arterial Operations
IU.35	Fruitville Pike Signal Improvements	Manheim Township, Lancaster MPO, PennDOT 8-0	Freeway & Arterial Operations
IU.36	Mount Joy Signal Improvements	Mount Joy Borough, Rapho Township, Lancaster MPO, PennDOT 8-0	Freeway & Arterial Operations
IU.37	New Holland Avenue Signal Improvements	City of Lancaster, Manheim Township, East Lampeter Township, Upper Leacock Township, Lancaster MPO, PennDOT 8-0	Freeway & Arterial Operations
IU.38	PA 501 Signal Improvements	Lititz Borough, Warwick Township, Lancaster MPO, PennDOT 8-0	Freeway & Arterial Operations
IU.39	PA 72 Signal Improvements	East Petersburg Borough, Lancaster MPO, PennDOT 8-0	Freeway & Arterial Operations
IU.40	I-78 and PA 33 Interchange Improvements	PennDOT 5-0, LVPC MPO	Freeway & Arterial Operations

# Regional Operations Plan (ROP) Eastern RTMC Region

Project #	Project	Stakeholders	Improvement Type
IU.41	I-81 Susquehanna County CCTV & DMS Gaps	PennDOT 4-0, Northern Tier RPO	Freeway & Arterial Operations
IU.42	Oakview Road Bike Route	East Lampeter Township, Lancaster MPO, PennDOT 8-0	Freeway & Arterial Operations
IU.43	PA 896 Bike Route	East Lampeter Township, Lancaster MPO, PennDOT 8-0	Multimodal Connectivity
IU.44	Spring Street (SR 2014) Corridor Signal Improvements	PennDOT 5-0, RATS	Multimodal Connectivity

## Previous Project Status

**TABLE 4: ROP PROJECT UPDATES**

Project #	Project Name	Priority Area	Planned Improvements	Stakeholders	Estimated Cost (Capital)	Priority	Project Status	Funding Source	Notes
CN.01	Dauphin I-283/PA-283 ITS Fiber Interconnect	Communications	Fiber Optic Cable	PennDOT 8-0	\$10M+	High	In Design		I-283 is in design for construction in 2025
CN.02	US 30 Fiber Deployment	Communications	Fiber Optic Cable	PennDOT 8-0	\$10M+	Normal	Partial Progress		PA 441 to PA501 complete. Break up this project by county for planning
FA.01	Tilghman St. Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 5-0	\$500k-\$2M	High	Documented		
FA.02	Cressona Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 5-0	\$500k-\$2M	High	Documented		
FA.03	Tamaqua Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 5-0	\$500k-\$2M	High	Documented		
FA.04	US 22/I-78 ICM	Freeway & Arterial Operations	ICM, CCTV, DMS, VSL, Queue Detection, Traffic Signal Improvements	PennDOT 5-0	\$2M-\$10M	High	In Construction	CAQ, STP, TSMO	Partially addressed with the 22-LUI project, ECMS #110085, currently in construction.
FA.05	I-81 ICM (D8)	Freeway & Arterial Operations	ICM, CCTV, DMS, Queue Detection, Traffic Signal Improvements	PennDOT 8-0	\$2M-\$10M	High	Partial Progress		
FA.06	Cameron St. Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 8-0	\$500k-\$2M	High	In Construction		ECMS #113276
FA.07	PA-924 Ramp Preemption	Freeway & Arterial Operations	Ramp Preemption	PennDOT 4-0	<\$500k	Normal	In Design	TIP, TIF	
FA.08	Marysville Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 8-0	<\$500k	Normal	Documented		
FA.09	US 22/322 Ramp Metering	Freeway & Arterial Operations	Ramp Metering	PennDOT 8-0	<\$500k	Normal	Documented		
FA.10	Jim Thorpe Operations Improvements	Freeway & Arterial Operations	DMS, Smart Parking, Traffic Signal Improvements	PennDOT 5-0	\$500k-\$2M	Normal	Partial Progress		Change to high priority. Study complete
FA.11	Church St. Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 4-0	\$500k-\$2M	Normal	Documented		
FA.12	Davis St. Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 4-0	\$500k-\$2M	Normal	Documented		
FA.13	Wilkes-Barre Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 4-0	\$500k-\$2M	Normal	Partial Progress		Pennsylvania and Union intersection done.
FA.14	Milford Operations Improvements	Freeway & Arterial Operations	TSMO	PennDOT 4-0	\$500k-\$2M	Normal	Documented		
FA.15	Downtown Easton Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 5-0, LANTA	\$500k-\$2M	Normal	Documented		
FA.16	Emmaus Ave. Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 5-0	\$500k-\$2M	Normal	Documented		
FA.17	Hill to Hill Bridge Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 5-0	\$500k-\$2M	Normal	In Design		

# Regional Operations Plan (ROP)

## Eastern RTMC Region

Project #	Project Name	Priority Area	Planned Improvements	Stakeholders	Estimated Cost (Capital)	Priority	Project Status	Funding Source	Notes
FA.18	PA-100 Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 5-0	\$500k-\$2M	Normal	Documented		
FA.19	PA-329 Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 5-0	\$500k-\$2M	Normal	Documented		
FA.20	US 222 Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 5-0	\$500k-\$2M	Normal	Documented		
FA.21	Palmerton Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 5-0	\$500k-\$2M	Normal	Partial Progress	GLG, ARLE	PennDOT Connects
FA.22	Boyetown Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 5-0	\$500k-\$2M	Normal	Documented		
FA.23	Waynesboro Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 8-0	\$500k-\$2M	Normal	Complete		
FA.24	Carlisle Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 8-0	\$500k-\$2M	Normal	Documented		
FA.25	Governor Rd. Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 8-0	\$500k-\$2M	Normal	Documented		
FA.26	I-83 Queue Warning	Freeway & Arterial Operations	Queue Warning, DMS	PennDOT 8-0	\$500k-\$2M	Normal	Documented		
FA.27	Lancaster Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 8-0	\$500k-\$2M	Normal	Partial Progress	GLG	2019 - The City had a GLG project where traffic signal controller were upgraded at 91 intersections. 2023 - The City currently has a GLG project that is revisiting the signal coordination. This project will likely be implemented later this year or early next year.
FA.28	PA-741 Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 8-0	\$500k-\$2M	Normal	Documented		
FA.29	Lititz Pk./Oregon Pk. Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 8-0	\$500k-\$2M	Normal	Documented		
FA.30	US 30 Queue Warning	Freeway & Arterial Operations	Queue Warning, DMS	PennDOT 8-0	\$500k-\$2M	Normal	Complete		The US 30 queue warning system was completed between PA-462 and PA-283 using existing signs and ATMS.
FA.31	Lebanon Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 8-0	\$500k-\$2M	Normal	Documented		
FA.32	US 30 York Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 8-0	\$500k-\$2M	Normal	In Construction		
FA.33	Gettysburg Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 8-0	\$2M-\$10M	Normal	Documented		

# Regional Operations Plan (ROP)

## Eastern RTMC Region

Project #	Project Name	Priority Area	Planned Improvements	Stakeholders	Estimated Cost (Capital)	Priority	Project Status	Funding Source	Notes
FA.34	I-81 (Wilkes-Barre/Scranton) ICM	Freeway & Arterial Operations	ICM, CCTV, DMS, Queue Detection, Ramp Metering, Flex Lanes, Traffic Signal Improvements, Transit Improvements	PennDOT 4-0, Lackawanna/Luzerne MPO, COLTS, Luzerne Transit	\$2M-\$10M	Normal	Documented		
FA.35	I-80 (Monroe) ITS	Freeway & Arterial Operations	ICM, CCTV, DMS, Junction Control, Ramp Metering, VSL, Queue Detection, Traffic Signal Improvements, Transit Improvements	PennDOT 5-0, NEPA MPO, Martz, Monroe County Transit Authority	\$2M-\$10M	Normal	Partial Progress		80-05S ECMS #57921 installing one DMS; 80-17M ECMS #76357 installing three CCTVs and two DMS
FA.36	Downtown Reading Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 5-0	\$2M-\$10M	Normal	In Construction	ARLE	Retiming & replacing hardware. 52 signals
FA.37	Wernersville-Sinking Spring Signal Improvements	Freeway & Arterial Operations	Traffic Signal Improvements	PennDOT 5-0	\$2M-\$10M	Normal	Documented		
FA.38	US 30 ICM	Freeway & Arterial Operations	ICM, CCTV, Type A DMS, Traffic Signal Improvements	PennDOT 8-0	\$2M-\$10M	Normal	Partial Progress		
MC.01	LVPC Walk/Roll Bicycle Commuting Corridors	Multimodal Connectivity	Bike Improvements	LVPC, PennDOT 5-0	<\$500k	High	Documented		
MC.02	LANTA Enhanced Bus Service	Multimodal Connectivity	Transit Improvements	LANTA, PennDOT 5-0, LVPC	<\$500k	High	Documented		
MC.03	Lancaster Active Transportation Short-Term Priority Projects	Multimodal Connectivity	Bike Improvements	City of Lancaster, PennDOT 8-0	<\$500k	Normal	Partial Progress	City of Lancaster, Lancaster MPO	Christian Street Bike Boulevard: north section completed in 2021, south section in pre-construction; Farnum-Duke Connection: Duke Street to be repaved in 2023, South Queen and Farnum Street Pedestrian Improvements Project, South Christian Street Bike Boulevard in pre-construction; Prince Street - James Street intersection: high visibility crosswalks and bike facilities (bike box and bike lanes) added in 2019, Prince Street resurfaced in 2022; Walnut and Chestnut Street Separated Bike Lanes: Walnut completed in 2019, Chestnut is now "Eastbound Connector" using Lemon Street, which is in pre-construction

# Regional Operations Plan (ROP)

## Eastern RTMC Region

Project #	Project Name	Priority Area	Planned Improvements	Stakeholders	Estimated Cost (Capital)	Priority	Project Status	Funding Source	Notes
MC.04	Lehigh Valley Bike Share	Multimodal Connectivity	Bike Improvements	LVPC, City of Allentown, City of Bethlehem, City of Easton	<\$500k	Normal	Documented		
MC.05	Harrisburg Transit Connections	Multimodal Connectivity	Transit Improvements	HATS MPO, CAT, PennDOT 8-0	<\$500k	Normal	Documented		
MC.06	Harrisburg Transit Priority	Multimodal Connectivity	Transit Improvements	HATS MPO, CAT, PennDOT 8-0	<\$500k	Normal	Documented		
MC.07	LVPC Walk/Roll Catalytic Projects	Multimodal Connectivity	Bike Improvements	LVPC, PennDOT 5-0	\$500k-\$2M	Normal	Documented		
MC.08	Wescosville Park & Ride Improvements	Multimodal Connectivity	Smart Parking, DMS	PennDOT 5-0, LVPC	\$500k-\$2M	Normal	Documented		
TI.01	District 4-0 ITS Gaps	Traveler Information	Type A DMS	PennDOT 4-0	\$500k-\$2M	High	Partial Progress		
TI.02	I-84 Corridor ITS	Traveler Information	CCTV, DMS, RWIS	PennDOT 4-0	\$500k-\$2M	High	Partial Progress		CCTV at mm 26, 29.2 DMS EB and CCTV
TI.03	Susquehanna County ITS Gaps	Traveler Information	CCTV, DMS	PennDOT 4-0	\$500k-\$2M	High	In Construction	P3	4 CCTVs, 2 DMS being added, and DMS relocation as part of P3 Bridges.
TI.04	D8 Interstate CCTV Gaps	Traveler Information	CCTV	PennDOT 8-0	\$500k-\$2M	High	Documented		
TI.05	D8 Interstate DMS Gaps	Traveler Information	DMS	PennDOT 8-0	\$500k-\$2M	High	Documented		
TI.06	D8 Interstate CCTV DMS Gaps	Traveler Information	DMS, CCTV	PennDOT 8-0	\$500k-\$2M	High	Documented		
TI.07	US 222 Corridor ITS	Traveler Information	DMS, CCTV	PennDOT 5-0	\$500k-\$2M	High	Documented		Applied for TSMO Funds to install a CCTV at Bus. 222 and US 222
TI.08	District 5-0 CCTV Gaps	Traveler Information	CCTV	PennDOT 5-0	\$2M-\$10M	High	Documented		Applied for TSMO Funds to install a CCTV on I-78 at exit 13 in Berks and I-81 at MM130 and Exit 138 in Schuylkill County.
TI.09	District 5-0 DMS Gaps	Traveler Information	DMS	PennDOT 5-0	\$2M-\$10M	High	Partial Progress		Converted flashing beacon to a Type-A DMS on I-176

# Regional Operations Plan (ROP)

## Eastern RTMC Region

Project #	Project Name	Priority Area	Planned Improvements	Stakeholders	Estimated Cost (Capital)	Priority	Project Status	Funding Source	Notes
TI.10	District 5-0 Replace Existing Portable CMS	Traveler Information	DMS	PennDOT 5-0	\$500k-\$2M	High	Partial Progress		
TI.11	D5 TMC Upgrade	Traveler Information	TMC	PennDOT 5-0	<\$500k	Normal	Documented		Applied for TSMO Funds for a Concept of Operations
TI.12	Lebanon County RWIS	Traveler Information	RWIS	PennDOT 8-0	<\$500k	Normal	Documented		
TI.13	I-81/Northeast Extension Travel Times	Traveler Information	DMS	PennDOT 4-0, PTC	\$500k-\$2M	Normal	Documented		
TI.14	US 11/15 Devices	Traveler Information	CCTV, Type A DMS	PennDOT 8-0	\$500k-\$2M	Normal	Documented		
TI.15	US 22/322 Devices	Traveler Information	CCTV, DMS	PennDOT 8-0	\$500k-\$2M	Normal	In Design		
TI.16	US 30 ITS	Traveler Information	CCTV, DMS, Traffic Signal Improvements	PennDOT 8-0	\$500k-\$2M	Normal	In Construction	Lancaster MPO, NHPP	\$187,000 programmed in FFY 2023
TI.17	District 8-0 Interstate Approach Gaps	Traveler Information	Type A DMS	PennDOT 8-0	\$500k-\$2M	Normal	Documented		
TI.18	Dillsburg ITS	Traveler Information	CCTV, DMS	PennDOT 8-0	\$500k-\$2M	Normal	In Construction		
TI.19	District 5-0 CCTV Digital Retrofit	Traveler Information	CCTV Retrofit	PennDOT 5-0	<\$500k	Normal	Complete		Used Antiquated funds and the ITS Maintenance Contract.
TI.20	District 5-0 DMS Interstate Approach Gaps	Traveler Information	Type A DMS	PennDOT 5-0	\$500k-\$2M	Normal	Partial Progress		Installing a DMS on Northbound US 209 before I-80 under the 80-17M project, ECMS #76357. Two CCTVs being installed under future ITS Maintenance Contract on I-78 at exits 16 and 23.
TI.21	Berks ITS	Traveler Information	CCTV, DMS, RWIS	PennDOT 5-0	\$2M-\$10M	Normal	Documented		Applied for TSMO Funds to install CCTVs on US 222 and US 422 in Berks County
TIM.01	District 5-0 Curve Warning	Traffic Incident Management	Curve Warning	PennDOT 5-0, PennDOT 4-0	<\$500k	High	In Construction		ECMS #116727 child to ECMS #116752

# Regional Operations Plan (ROP)

## Eastern RTMC Region

Project #	Project Name	Priority Area	Planned Improvements	Stakeholders	Estimated Cost (Capital)	Priority	Project Status	Funding Source	Notes
TIM.02	Berks Freeway Service Patrol	Traffic Incident Management	Freeway Service Patrol	PennDOT 5-0	<\$500k	High	Complete	STU	Currently Active. Want to expand areas of coverage on US 222 & US 422
TIM.03	I-81 Freeway Service Patrol	Traffic Incident Management	Freeway Service Patrol	PennDOT 8-0, HATS MPO, Franklin County MPO	<\$500k	High	Documented		
TIM.04	South Central Freeway Service Patrol	Traffic Incident Management	Freeway Service Patrol	PennDOT 8-0, York MPO, Lancaster MPO	<\$500k	High	Documented		To be presented by District 8-0 staff to Lancaster MPO Technical Committee in September 2023. Proposed for \$330,000 (\$990,000 total) in FFY 2024, 2025, 2026 using Lancaster MPO funding TBD. Proposed two patrol routes including US 30 from Prospect Road exit to PA 462 exit, US 283 from US 30 exit to Spooky Nook exit, and US 222 from US 30 exit to PA 272 exit and dispatch zones where needed, including US 30 bridge during US 30 and PA 462 bridge projects.
TIM.05	I-81 Safety Systems	Traffic Incident Management	Curve Warning, Bridge De-icing	PennDOT 4-0	\$500k-\$2M	High	Documented		
TIM.06	US 222/US 422 Curve Warning	Traffic Incident Management	Curve Warning	PennDOT 5-0	\$500k-\$2M	High	In Construction	STU	ECMS #116752
TIM.07	Wilkes-Barre/Scranton Freeway Service Patrol	Traffic Incident Management	Freeway Service Patrol	PennDOT 4-0, Lackawanna/Luzerne MPO	<\$500k	Normal	Documented		
TIM.08	Wilke-Barre/Scranton TIM Team	Traffic Incident Management	TIM Team	PennDOT 4-0, Lackawanna/Luzerne MPO, Local Municipalities, Emergency Personnel	<\$500k	Normal	Documented		
TIM.09	Lehigh Valley Freeway Service Patrol	Traffic Incident Management	Freeway Service Patrol	PennDOT 5-0, LVPC	<\$500k	Normal	Complete		Currently Active
TIM.10	Lehigh Valley TIM Team	Traffic Incident Management	TIM Team	PennDOT 5-0, LVPC/LVTS, Lehigh Valley EMA, Local Municipalities, Emergency Personnel	<\$500k	Normal	Documented		
TIM.11	Reading TIM Team	Traffic Incident Management	TIM Team	PennDOT 5-0, Reading MPO, Local Municipalities, Emergency Personnel	<\$500k	Normal	Documented		

# Regional Operations Plan (ROP) Eastern RTMC Region

Project #	Project Name	Priority Area	Planned Improvements	Stakeholders	Estimated Cost (Capital)	Priority	Project Status	Funding Source	Notes
TIM.12	South Central TIM Team	Traffic Incident Management	TIM Team	PennDOT 8-0, Planning Partners, Local Municipalities, Emergency Personnel	<\$500k	Normal	Documented	Lancaster MPO	
TIM.13	District 8-0 Curve Warning	Traffic Incident Management	Curve Warning	PennDOT 8-0	<\$500k	Normal	Documented		
TIM.14	I-81 Emergency Access	Traffic Incident Management	Emergency Access	PennDOT 4-0	\$500k-\$2M	Normal	Documented		
TIM.15	District 8-0 Bridge De-Icing	Traffic Incident Management	Bridge De-Icing	PennDOT 8-0	\$500k-\$2M	Normal	Documented		
TIM.16	US 15 Corridor Incident Management	Traffic Incident Management	TIM Team	PennDOT 8-0	\$500k-\$2M	Normal	Documented		

## Previous Study Status

**TABLE 5: ROP STUDIES UPDATES**

Study Name	Priority Area	Description	Stakeholders	Priority	Project Status	Notes
Lancaster Transit Operations Study	Multimodal Connectivity	Identify corridors for transit priority treatments (bus lanes, queue jumps, Transit Signal Priority, etc.), improve connectivity between Amtrak/Downtown, identify Park & Ride expansion needs/opportunity. Consider Orange/King Sts., Prince St., and Queen/Duke Sts.. For transit priority, per latest Transit Development Plan	Lancaster MPO, South Central Transit Authority			
Eastern RTMC Truck Parking Study	Multimodal Connectivity	Determine needs and locations for possible expansion of truck parking. Study possibility of installing Truck Parking Management System. Consider potential public-private partnership opportunities with private truck stop facilities. Coordinate with planned PennDOT Truck Parking Study.	PennDOT Central Office, PennDOT 4-0, PennDOT 5-0, PennDOT 8-0		Partial Progress	Eastern Regional Freight Plan, Reading, NEPA, Lackawanna-Luzerne, Lehigh Valley, Lebanon, Completion expected end of year.
Lebanon Valley Expo Center Event Management	Operational Teamwork/Institutional Coordination	Improve traffic management for special events.	Lebanon Valley Expo Center			
Renaissance Faire Event Management	Operational Teamwork/Institutional Coordination	Improve traffic management for events.	PA Renaissance Faire			

## New ROP Projects

## IU-01: US 30 Fiber Deployment – York County

**PROJECT DESCRIPTION AND SCOPE:** Deployment of fiber optic cable backbone network along US 30 corridor through York County.

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**STAKEHOLDERS:** PennDOT 8-0, York MPO

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**ESTIMATED SCHEDULE:** 3+ years

**ESTIMATED COSTS:**

\$\$\$\$  
(\$10M+)

Life Cycle: 25 years

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**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Complex

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**TECHNOLOGY COMPONENTS** (if applicable): Communications Infrastructure

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**PREREQUISITES AND DEPENDENCIES:** N/A

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**PERFORMANCE MEASURES:** Number of Miles of Installed Fiber Optic Cable

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**BENEFITS:** A fiber optic backbone along this key US Route would increase connectivity and greatly increase the ability of PennDOT to expand their deployment of ITS and other technology. This would also allow for traffic signal data to be brought back to the RTMC for future unified command and control operations on signal corridors.

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**OTHER CONSIDERATIONS AND ISSUES:** N/A

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## IU-02: US 30 Fiber Deployment – Adams County

**PROJECT DESCRIPTION AND SCOPE:** Deployment of fiber optic cable backbone network along US 30 corridor through Adams County.

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**STAKEHOLDERS:** PennDOT 8-0, Adams County RPO

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**ESTIMATED SCHEDULE:** 3+ years

**ESTIMATED COSTS:**

\$\$\$\$  
(\$10M+)

Life Cycle: 25 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Complex

---

**TECHNOLOGY COMPONENTS** (if applicable): Communications Infrastructure

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Number of Miles of Installed Fiber Optic Cable

---

**BENEFITS:** A fiber optic backbone along this key US Route would increase connectivity and greatly increase the ability of PennDOT to expand their deployment of ITS and other technology. This would also allow for traffic signal data to be brought back to the RTMC for future unified command and control operations on signal corridors.

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**OTHER CONSIDERATIONS AND ISSUES:** N/A

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## IU-03: US 30 Fiber Deployment – Franklin County

**PROJECT DESCRIPTION AND SCOPE:** Deployment of fiber optic cable backbone network along US 30 corridor through Franklin County.

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**STAKEHOLDERS:** PennDOT 8-0, Franklin MPO

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**ESTIMATED SCHEDULE:** 3+ years

**ESTIMATED COSTS:**

\$\$\$\$  
(\$10M+)

Life Cycle: 25 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Complex

---

**TECHNOLOGY COMPONENTS** (if applicable): Communications Infrastructure

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Number of Miles of Installed Fiber Optic Cable

---

**BENEFITS:** A fiber optic backbone along this key US Route would increase connectivity and greatly increase the ability of PennDOT to expand their deployment of ITS and other technology. This would also allow for traffic signal data to be brought back to the RTMC for future unified command and control operations on signal corridors.

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**OTHER CONSIDERATIONS AND ISSUES:** N/A

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## IU-04: I-81 CCTV, DMS, & Fiber Moosic to Scranton

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV & DMS on I-81 between Moosic and Scranton to fill ITS gaps. Deployment of Fiber Optic Cable backbone network along I-81.

**STAKEHOLDERS:** PennDOT 4-0, Lackawanna/Luzerne MPO

**ESTIMATED SCHEDULE:** 1-3 years

Life Cycle: 10-15 years

**ESTIMATED COSTS:**

\$\$\$  
(\$2M-\$10M)

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System, Communications Infrastructure

**PREREQUISITES AND DEPENDENCIES:** N/A

**PERFORMANCE MEASURES:** Improved Incident Response Time

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

**OTHER CONSIDERATIONS AND ISSUES:** N/A

## IU-05: I-81 CCTV, DMS, & Fiber Dunmore

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV and DMS on I-81 in Dunmore to fill ITS gaps. Install fiber optic communications throughout project limits.

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**STAKEHOLDERS:** PennDOT 4-0, Lackawanna/Luzerne MPO

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**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$\$  
(\$2M-\$10M)

Life Cycle: 10-25 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Complex

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**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System, Communications Infrastructure

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**PREREQUISITES AND DEPENDENCIES:** N/A

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**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

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**OTHER CONSIDERATIONS AND ISSUES:** N/A

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## IU-06: I-81 CCTV & DMS Gaps from I-80 to Dorrance

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV and DMS on I-81 between I-80 and Dorrance to fill ITS gaps.

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**STAKEHOLDERS:** PennDOT 4-0, Lackawanna/Luzerne MPO

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**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$  
(<\$500k)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

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**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

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**PERFORMANCE MEASURES:** Improved Incident Response Time

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**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

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**OTHER CONSIDERATIONS AND ISSUES:** N/A

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## IU-07: I-80 CCTV & DMS I-81 to White Haven

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV and DMS on I-80 between I-81 and White Haven to fill ITS gaps.

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**STAKEHOLDERS:** PennDOT 4-0, Lackawanna/Luzerne MPO

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**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

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**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

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**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

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**OTHER CONSIDERATIONS AND ISSUES:** N/A

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## IU-08: I-81 CCTV & DMS at Exit 219

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV and DMS on I-81 at Exit 219 in Susquehanna County to fill ITS gaps.

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**STAKEHOLDERS:** PennDOT 4-0, Northern Tier RPO

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**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

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**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

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**OTHER CONSIDERATIONS AND ISSUES:** N/A

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## IU-09: I-81 Weigh-In-Motion, CCTV, & DMS

**PROJECT DESCRIPTION AND SCOPE:** Install Weigh-In-Motion System along I-81 in Lackawanna County between Dickson City and Susquehanna County Line. Install CCTV & DMS along I-81 in Lackawanna County.

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**STAKEHOLDERS:** PennDOT 4-0, Lackawanna/Luzerne MPO

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**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): Weigh-In-Motion System, CCTV System, DMS System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

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**PERFORMANCE MEASURES:** Improved Incident Response Time

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**BENEFITS:** Monitoring and enforcement of overweight vehicles. Improve incident response, congestion monitoring, and traveler information

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**OTHER CONSIDERATIONS AND ISSUES:** N/A

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## IU-10: I-81 CCTV, DMS, & Fiber at PA 115

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV and DMS on I-81 at PA 115 Interchange to fill ITS gaps. Install fiber optic communications throughout project limits.

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**STAKEHOLDERS:** PennDOT 4-0, Lackawanna/Luzerne MPO

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<b>ESTIMATED SCHEDULE:</b> 1-3 years	<b>ESTIMATED COSTS:</b>
Life Cycle: 10-15 years	\$ (<\$500k)

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

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**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System, Communications Infrastructure

---

**PREREQUISITES AND DEPENDENCIES:** N/A

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**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

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**OTHER CONSIDERATIONS AND ISSUES:** N/A

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## IU-11: I-84 CCTV & DMS at PA 435

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV and DMS on I-81 at PA 435 to fill ITS gaps.

**STAKEHOLDERS:** PennDOT 4-0, Lackawanna/Luzerne MPO

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$  
(<\$500k)

Life Cycle: 10-15 years

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System

**PREREQUISITES AND DEPENDENCIES:** N/A

**PERFORMANCE MEASURES:** Improved Incident Response Time

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

**OTHER CONSIDERATIONS AND ISSUES:** N/A

## IU-12: I-81 CCTV & DMS at PA 424

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV and DMS on I-81 at PA 424 Interchange to fill ITS gaps.

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**STAKEHOLDERS:** PennDOT 4-0, Lackawanna/Luzerne MPO

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**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$  
(<\$500k)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

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**OTHER CONSIDERATIONS AND ISSUES:** N/A

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## IU-13: I-81 CCTV & DMS New Milford to State Line

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV and DMS on I-81 from New Milford to New York State Line in Susquehanna County to fill ITS gaps.

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**STAKEHOLDERS:** PennDOT 4-0, Northern Tier RPO

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**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

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**OTHER CONSIDERATIONS AND ISSUES:** N/A

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## IU-14: I-81 CCTV & DMS at I-476 Interchange

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV and DMS on I-81 at I-476 PA Turnpike to fill ITS gaps.

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**STAKEHOLDERS:** PennDOT 4-0, Lackawanna/Luzerne MPO

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**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

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## IU-15: I-81 CCTV, DMS, & Fiber mm 161-169

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV and DMS on I-81 between mm 161-169 to fill ITS gaps. Install fiber optic communications throughout project limits.

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**STAKEHOLDERS:** PennDOT 4-0, Lackawanna/Luzerne MPO

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**ESTIMATED SCHEDULE:** 3+ years

**ESTIMATED COSTS:**

\$\$\$  
(\$2M-\$10M)

Life Cycle: 25 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Complex

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**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System, Communication Infrastructure

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**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-16: I-380 Corridor CCTV & DMS

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV and DMS on I-380 between I-84 and Monroe County Line to fill ITS gaps. Install fiber optic communications throughout project limits.

---

**STAKEHOLDERS:** PennDOT 4-0, Lackawanna/Luzerne MPO

---

**ESTIMATED SCHEDULE:** 3+ years

**ESTIMATED COSTS:**

\$\$\$  
(\$2M-\$10M)

Life Cycle: 25 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Complex

---

**TECHNOLOGY COMPONENTS** (*if applicable*): CCTV System, DMS System, Communication Infrastructure

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-17: US 6 Wyoming County CCTV

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV on US 6 in Wyoming County.

**STAKEHOLDERS:** PennDOT 4-0, Northern Tier RPO

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$  
(<\$500k)

Life Cycle: 10-15 years

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

**TECHNOLOGY COMPONENTS** (if applicable): CCTV System

**PREREQUISITES AND DEPENDENCIES:** N/A

**PERFORMANCE MEASURES:** Improved Incident Response Time

**BENEFITS:** Improve incident response, congestion monitoring

**OTHER CONSIDERATIONS AND ISSUES:** N/A

## IU-18: I-84 CCTV & DMS Gaps

**PROJECT DESCRIPTION AND SCOPE:** Install CCTVs and DMS to fill gaps on I-84 at Lackawanna Railroad & over Roaring Brook.

---

**STAKEHOLDERS:** PennDOT 4-0, Lackawanna/Luzerne MPO

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$  
(<\$500k)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-19: US 6 (Casey Highway) CCTV & DMS

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV cameras and DMS at locations along US 6 (Casey Highway) in Lackawanna & Wayne Counties.

---

**STAKEHOLDERS:** PennDOT 4-0, Lackawanna/Luzerne MPO, Wayne County

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$  
(<\$500k)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-20: I-80 CCTV & DMS Nescopeck

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV cameras and DMS on I-80 in Luzerne County near Nescopeck.

---

**STAKEHOLDERS:** PennDOT 4-0, Lackawanna/Luzerne MPO

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-21: I-84 CCTV & DMS Pike County

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV cameras and DMS along I-84 in Pike County.

---

**STAKEHOLDERS:** PennDOT 4-0, NEPA MPO

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$  
(<\$500k)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-22: PA 611 Corridor Improvements

**PROJECT DESCRIPTION AND SCOPE:** Conduct corridor study on PA 611 in Lehigh County. upgrade signal equipment and update signal timing along corridor. Improve pedestrian facilities along corridor. investigate freight improvement options.

**STAKEHOLDERS:** PennDOT 5-0, NEPA MPO, Lehigh Valley MPO

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

**TECHNOLOGY COMPONENTS** (if applicable): Traffic Signal Systems

**PREREQUISITES AND DEPENDENCIES:** N/A

**PERFORMANCE MEASURES:** Improved Travel Time Ratio

**BENEFITS:** Improved traffic flow and reduced congestion along an important signalized corridor within the region.

**OTHER CONSIDERATIONS AND ISSUES:** N/A

## IU-23: PA 940 Corridor Improvements

**PROJECT DESCRIPTION AND SCOPE:** Upgrade signal equipment and update signal timing along PA 940 corridor in Monroe County near I-380 interchange.

---

**STAKEHOLDERS:** PENNDOT 5-0, NEPA MPO

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): Traffic Signal Systems

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Travel Time Ratio

---

**BENEFITS:** Improved traffic flow and reduced congestion along an important signalized corridor within the region.

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-24: Pedestrian Countdown Timers

**PROJECT DESCRIPTION AND SCOPE:** Install Pedestrian Countdown Timers at key intersections in Berks County.

---

**STAKEHOLDERS:** PENNDOT 5-0, RATS MPO, LOCAL MUNICIPALITIES

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$  
(<\$500k)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): Pedestrian Countdown Timers System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Reduction in Pedestrian Crashes

---

**BENEFITS:** Improved traffic flow and reduced congestion caused by unplanned events

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-25: Ben Franklin Hwy US 422 Corridor Improvements

**PROJECT DESCRIPTION AND SCOPE:** Upgrade signal equipment and update signal timing. Install fiber optic communications with the potential to connect with PennDOT District 6-0 fiber network.

---

**STAKEHOLDERS:** PENNDOT 5-0, RATS MPO

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): Traffic Signal Systems

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Travel Time Ratio

---

**BENEFITS:** Improved traffic flow and reduced congestion along an important signalized corridor within the region

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-26: Berks County Signal Improvements

**PROJECT DESCRIPTION AND SCOPE:** Perform low-cost signal upgrades at various locations throughout Berks County.

---

**STAKEHOLDERS:** PENNDOT 5-0, RATS MPO, LOCAL MUNICIPALITIES

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): Traffic Signal Systems

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Travel Time Ratio

---

**BENEFITS:** Improved traffic flow and reduced congestion

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-27: US 222 ITS Gaps

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV cameras & DMS along US 222 corridor in Lancaster County.

---

**STAKEHOLDERS:** PennDOT 8-0, Lancaster MPO

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-28: Good Drive Signal Improvements

**PROJECT DESCRIPTION AND SCOPE:** Upgrade signal equipment and update signal timing on Good Drive in East Hempfield Township in Lancaster County. Deployment of an Adaptive Signal System was identified in the Roherstown Road and Good Drive Traffic Study (2017).

**STAKEHOLDERS:** East Hempfield Township, Lancaster MPO, PennDOT 8-0

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

**TECHNOLOGY COMPONENTS** (if applicable): Traffic Signal Systems

**PREREQUISITES AND DEPENDENCIES:** N/A

**PERFORMANCE MEASURES:** Improved Travel Time Ratio

**BENEFITS:** Improved traffic flow and reduced congestion along an important signalized corridor within the region

**OTHER CONSIDERATIONS AND ISSUES:** N/A

## IU-29: PA 501 and PA 772 Signal Coordination

**PROJECT DESCRIPTION AND SCOPE:** Upgrade signal equipment and update signal timing along the PA 501 and PA 772 corridors in Lititz Borough.

---

**STAKEHOLDERS:** Lititz Borough, Lancaster MPO, PennDOT 8-0

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): Traffic Signal Systems

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Travel Time Ratio

---

**BENEFITS:** Improved traffic flow and reduced congestion along an important signalized corridor within the region.

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-30: Columbia Borough CCTV & Signal Improvements

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV cameras along US 30 in Columbia Borough. Upgrade signal equipment and update signal timing along US 441 and local roads.

---

**STAKEHOLDERS:** Columbia Borough, Lancaster MPO, PennDOT 8-0

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): Traffic Signal Systems

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Travel Time Ratio, Improved Incident Response Time

---

**BENEFITS:** Improve incident response. Improved traffic flow and reduced congestion along an important signalized corridor within the region.

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-31: Columbia Borough Emergency Preemption

**PROJECT DESCRIPTION AND SCOPE:** Install emergency vehicle preemption devices at 11 signalized intersections in Columbia Borough.

---

**STAKEHOLDERS:** Columbia Borough, Lancaster MPO, PennDOT 8-0

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$  
(<\$500k)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): Emergency Preemption System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Reduced Incident Response Time; Reduced Incident Clearance Time

---

**BENEFITS:** Provide improved response times for emergency vehicles to access incidents and allow faster incident clearance.

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-32: US 30 Greenfield Road Ramp Meter

**PROJECT DESCRIPTION AND SCOPE:** INSTALL RAMP METERING AT THE WESTBOUND US 30 ON-RAMP FROM GREENFIELD ROAD.

---

**STAKEHOLDERS:** East Lampeter Township, Lancaster MPO, PennDOT 8-0

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$  
(<\$500k)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): Ramp Metering System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Reduced Bottleneck Delay Surrogate; Improved Travel Time Ratio

---

**BENEFITS:** Improve traffic flow of US 30 by managing on-ramp volume.

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-33: Dillerville Road Flashing Yellow Arrows

**PROJECT DESCRIPTION AND SCOPE:** Convert left turn signals to flashing yellow arrow signals at Dillerville Road Harrisburg Pike and Dillerville road PA 72 intersections.

---

**STAKEHOLDERS:** City of Lancaster, Lancaster MPO, PennDOT 8-0

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$  
(<\$500k)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): Flashing Yellow Arrow Systems

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Reduce Left Turn Crashes, Improved Travel Time Ratio

---

**BENEFITS:** Reduced left turn crashes. Improved traffic flow and reduced congestion along an important signalized corridor within the region.

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-34: Elizabethtown Signal Improvements

**PROJECT DESCRIPTION AND SCOPE:** upgrade traffic signals to allow for Automated Traffic Signal Performance Measures (ATSPM) on the PA 743/ PA 241/ PA 230 corridor in Elizabethtown. Install flashing yellow arrows at the PA 743 PA 283 interchange.

**STAKEHOLDERS:** Elizabethtown Borough, Lancaster MPO, PennDOT 8-0

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

**TECHNOLOGY COMPONENTS** (if applicable): Traffic Signal Systems

**PREREQUISITES AND DEPENDENCIES:** N/A

**PERFORMANCE MEASURES:** Improved Travel Time Ratio

**BENEFITS:** Improved traffic flow and reduced congestion along an important signalized corridor within the region.

**OTHER CONSIDERATIONS AND ISSUES:** N/A

## IU-35: Fruitville Pike Signal Improvements

**PROJECT DESCRIPTION AND SCOPE:** Upgrade signal controllers to allow for Automated Traffic Signal Performance Measures (ATSPM) along Fruitville Pike.

---

**STAKEHOLDERS:** Manheim Township, Lancaster MPO, PennDOT 8-0

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): Traffic Signal Systems

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Travel Time Ratio

---

**BENEFITS:** Improved traffic flow and reduced congestion along an important signalized corridor within the region

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-36: Mount Joy Signal Improvements

**PROJECT DESCRIPTION AND SCOPE:** Upgrade signal controllers to allow for command/control functionality and Automated Traffic Signal Performance Measures (ATSPM) along PA 230 in Mount Joy.

**STAKEHOLDERS:** Mount Joy Borough, Rapho Township, Lancaster MPO, PennDOT 8-0

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

**TECHNOLOGY COMPONENTS** (if applicable): Traffic Signal Systems

**PREREQUISITES AND DEPENDENCIES:** N/A

**PERFORMANCE MEASURES:** Improved Travel Time Ratio

**BENEFITS:** Improved traffic flow and reduced congestion along an important signalized corridor within the region

**OTHER CONSIDERATIONS AND ISSUES:** N/A

## IU-37: New Holland Avenue Signal Improvements

**PROJECT DESCRIPTION AND SCOPE:** Upgrade signal controllers to allow for command/control functionality and Automated Traffic Signal Performance Measures (ATSPM) along New Holland Avenue.

**STAKEHOLDERS:** City of Lancaster, Manheim Township, East Lampeter Township, Upper Leacock Township, Lancaster MPO, PennDOT 8-0

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

**TECHNOLOGY COMPONENTS** (if applicable): Traffic Signal Systems

**PREREQUISITES AND DEPENDENCIES:** N/A

**PERFORMANCE MEASURES:** Improved Travel Time Ratio

**BENEFITS:** Improved traffic flow and reduced congestion along an important signalized corridor within the region.

**OTHER CONSIDERATIONS AND ISSUES:** N/A

## IU-38: PA 501 Signal Improvements

**PROJECT DESCRIPTION AND SCOPE:** Upgrade signal controllers to allow for command/control functionality and Automated Traffic Signal Performance Measures (ATSPM) along PA 501.

---

**STAKEHOLDERS:** Lititz Borough, Warwick Township, Lancaster MPO, PennDOT 8-0

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): Traffic Signal Systems

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Travel Time Ratio

---

**BENEFITS:** Improved traffic flow and reduced congestion along an important signalized corridor within the region.

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-39: PA 72 Signal Improvements

**PROJECT DESCRIPTION AND SCOPE:** Upgrade signal controllers to allow for command/control functionality and Automated Traffic Signal Performance Measures (ATSPM) along PA 72.

---

**STAKEHOLDERS:** East Petersburg Borough, Lancaster MPO, PennDOT 8-0

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** *(if applicable):*

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Travel Time Ratio

---

**BENEFITS:** Improved traffic flow and reduced congestion along an important signalized corridor within the region.

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-40: I-78 and PA 33 Interchange Improvements

**PROJECT DESCRIPTION AND SCOPE:** Implement ITS/TSMO and Safety improvements to the I-78 PA 33 Interchange.

---

**STAKEHOLDERS:** PennDOT 5-0, LVPC MPO

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): N/A

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-41: I-81 Susquehanna County CCTV & DMS Gaps

**PROJECT DESCRIPTION AND SCOPE:** Install CCTV cameras & DMS along I-81 in Susquehanna County.

---

**STAKEHOLDERS:** PennDOT 4-0, Northern Tier RPO

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$\$  
(\$500k-\$2M)

Life Cycle: 5-10 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): CCTV System, DMS System

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Incident Response Time

---

**BENEFITS:** Improve incident response, congestion monitoring, and traveler information

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-42: Oakview Road Bike Route

**PROJECT DESCRIPTION AND SCOPE:** Install on-road bike connection as part of the larger Route 30 Bike Network outlined in the Lincoln Highway Streetscape Plan.

---

**STAKEHOLDERS:** East Lampeter Township, Lancaster MPO, PennDOT 8-0

---

<b>ESTIMATED SCHEDULE:</b> 1-3 years	<b>ESTIMATED COSTS:</b>
Life Cycle: 5-10 years	\$ (<\$500k)

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): N/A

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Reduced Bottleneck Delay Surrogate; Improved Travel Time Ratio; Increased Bike Usage

---

**BENEFITS:** Positively impact mode share by encouraging increase in cycling through improved infrastructure

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-43: PA 896 Bike Route

**PROJECT DESCRIPTION AND SCOPE:** Install on-road bike connection as part of the larger Route 30 Bike Network outlined in the Lincoln Highway Streetscape Plan.

---

**STAKEHOLDERS:** East Lampeter Township, Lancaster MPO, PennDOT 8-0

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$  
(<\$500k)

Life Cycle: 5-10 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): N/A

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Reduced Bottleneck Delay Surrogate; Improved Travel Time Ratio; Increased Bike Usage

---

**BENEFITS:** Positively impact mode share by encouraging increase in cycling through improved infrastructure.

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---

## IU-44: Spring Street (SR 2014) Corridor Signal Improvements

**PROJECT DESCRIPTION AND SCOPE:** Replace signal heads at signalized intersections along Spring Street (SR 2014) in Berks County.

---

**STAKEHOLDERS:** PennDOT 5-0, RATS MPO

---

**ESTIMATED SCHEDULE:** 1-3 years

**ESTIMATED COSTS:**

\$  
(<\$500k)

Life Cycle: 10-15 years

---

**PROJECT TYPE:** Deployment

**LEVEL OF EFFORT:** Moderate

---

**TECHNOLOGY COMPONENTS** (if applicable): Traffic Signal Systems

---

**PREREQUISITES AND DEPENDENCIES:** N/A

---

**PERFORMANCE MEASURES:** Improved Travel Time Ratio

---

**BENEFITS:** Improved traffic flow and reduced congestion along an important signalized corridor within the region.

---

**OTHER CONSIDERATIONS AND ISSUES:** N/A

---